

**PROPOSED AUTHORITY TO CONSTRUCT
CABRILLO PORT**

Permit Number LNG-VT-2006-01

Pursuant to the Deepwater Port Act of 1974, as amended, 33 U.S.C. § 1501 et seq. (DPA), and in accordance with the provisions of Title I of the Federal Clean Air Act (CAA), 42 U.S.C. §§ 7401 et seq., and applicable pertinent rules and regulations approved or promulgated under the CAA, including air permitting rules under Ventura County Air Pollution Control District (VCAPCD or District) Regulation II, the U.S. Environmental Protection Agency (EPA) issues this Authority to Construct (ATC or permit)

BHP Billiton LNG International Inc. (BHPB or Permittee) is granted approval to construct Cabrillo Port (a deepwater port) in accordance with the permit application, all supplemental information associated with the permit application, federal regulations, District rules, and the terms and conditions set forth in this permit.

The granting of this ATC shall not be construed as an endorsement by EPA or guarantee compliance with applicable rules and regulations. This ATC does not relieve the Permittee from the responsibility to comply with any other applicable provisions of the CAA and state and local rules and regulations. All terms and conditions of the permit are enforceable by EPA and citizens under the CAA. Failure to properly install, operate, and maintain all equipment and control measures will be considered a violation of this permit. The permit number cited above should be referenced in future correspondence regarding this facility.

This permit becomes effective on the date of issuance.

Deborah Jordan
Director, Air Division

Date

Acronyms

BHPB	BHP Billiton International Inc.
BOG	boil off gas
BTU	British thermal unit
CFR	Code of Federal Regulations
CO	carbon monoxide
EPA	Environmental Protection Agency
FSRU	floating storage and re-gasification unit
ft ³	cubic feet
hr	hour
kW	kilowatt
LNG	liquefied natural gas
lb	pound
mcf/hr	thousand cubic feet per hour
MMBTU	million British thermal units
NO _x	nitrogen oxides
PM ₁₀	particulate matter less than 10 microns in diameter
ppmv	parts per million by volume
ppmw	parts per million by weight
psia	pounds per square inch absolute
ROC	reactive organic compounds
SCV	submerged combustion vaporizer
SIP	State Implementation Plan
SO ₂	sulfur dioxide
SSMP	startup, shutdown, and malfunction plan
tpy	tons per year
VCAPCD	Ventura County Air Pollution Control District
VOC	volatile organic compounds

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I. Project Description

Cabrillo Port will consist of a floating storage and re-gasification unit (FSRU) connected to two new parallel subsea pipelines. The equipment on the FSRU will include eight submerged combustion vaporizers (SCVs), four generator engines (three primary engines and one backup), three spherical LNG storage tanks, one diesel fuel storage tank, and other emergency and auxiliary support equipment. The gas pipelines will make landfall adjacent to the Southern California Gas Company's Ormond Beach Metering Station. From the metering station, natural gas will be transported in the existing onshore natural gas transmission systems.

Liquefied natural gas (LNG) will be shipped to the FSRU at approximately -260° F in specially designed double-hull ships (or carriers) from overseas. An LNG receiving system onboard the FSRU will assist in the transfer of the LNG to the storage tanks for holding prior to re-gasification in the SCVs. Once re-gasified, the natural gas will be transported to the onshore transmission system by the subsea pipeline. With a total LNG storage capacity of approximately 9,640,904 ft³ and a transfer rate to the FSRU of 8689 ft³ per minute, the FSRU will be able to re-gasify up to 1.5 billion ft³ of LNG per day. The LNG will typically contain about 99% methane, and less than 1 ppmv sulfur.

Emissions from the stationary sources onboard the FSRU will be controlled by a combination of control devices and operational limitations. BHPB has committed to install the following controls:

- Wartsila 9L50DF engines
 - selective catalytic reduction (SCR)
 - oxidation catalysts
- SCVs
 - low NOx burners

In addition to emissions from equipment onboard the FSRU, air emissions will be generated by marine vessels that service the facility. Specifically, the mobile source marine vessels associated with operation of the FSRU will include one LNG carrier, two tug/supply boats, and one crew boat.

Each LNG carrier berthing, unloading, and de-berthing event will take approximately 20 hours and will occur about three times per week. The tug/supply boats will operate once a week to bring supplies to the FSRU and haul waste back to shore for disposal. These boats will also assist in berthing of the LNG carriers. The crew boat will conduct approximately 3.5 round trips between the shore and the FSRU per week. BHPB has committed to reducing the emissions from these vessels by operating them on natural gas. The LNG carriers will operate on natural gas while in U.S. waters and the tug/supply and crew boats will operate on natural gas at all times.

In addition to minimizing emissions from the support vessels, BHPB has also committed to implement an air quality enhancement program to benefit air quality in the onshore region. Through this program, BHPB will execute contracts to retrofit two marine

vessels (long haul tugs) by replacing two propulsion engines and two auxiliary engines with modern low emitting engines (Tier 2 compliant diesel fired engines).

II. EQUIPMENT LIST

Unit ID Number	Description
D1, D2, D3, D4, D5, D6, D7, D8	8 submerged combustion vaporizers, Sela Fluid Processing Corporation model Sub-XLE, natural gas fueled, rated at 155 MMBtu/hr each
D9, D10, D11, D12	4 generator engines, Wartsila model 9L50DF, dual-fueled (natural gas and diesel), four-stroke, lean-burn, spark-ignited, rated at 8,250 kW each
D13	1 emergency standby engine, diesel fueled, rated at 4,200 kW
D14, D15, D16	3 emergency firewater pumps, diesel fueled, rated at 600 kW each
D17	1 diesel fuel storage tank, 145,000 gallons, fixed roof

III. Facility Location

The FSRU will be moored approximately 14 miles off the shore of mainland Ventura County, California, and 18 miles from Anacapa Island. The exact latitude and longitude of this location are:

Latitude: 33 51.518 N
Longitude: 119 02.015 W

IV. Definitions

The following definitions shall be used for the purposes of this permit. Terms not otherwise defined in this permit have the meaning assigned to them in the referenced CAA provisions and EPA and District regulations.

Breakdown condition An unforeseeable failure or malfunction of a) any air pollution control equipment which causes a violation of any emission limitation or restriction in the permit, or b) any in-stack continuous monitoring equipment, provided such failure or malfunction:

1. is not the result of neglect or disregard of any air pollution control law, rule or regulation;
2. is not the result of an intentional or negligent act or omission on the part of the Permittee;
3. is not the result of improper maintenance; and
4. does not constitute a nuisance pursuant to [Condition V.F](#) of this permit.

<i>Commence construction</i>	<p>To either:</p> <ol style="list-style-type: none"> 1. begin, or cause to begin, a continuous program of physical on-site construction of the facility; or 2. enter into binding agreements or contractual obligations which cannot be canceled or modified without substantial loss to the owner or operator to undertake a program of construction of the facility to be completed within a reasonable time.
<i>Company official</i>	<p>The highest ranking employee of the company:</p> <ol style="list-style-type: none"> 1. having knowledge of and responsibility for equipment on the FSRU; and 2. duly authorized by the company to prepare and maintain records of emissions from such equipment.
<i>Emergency situation</i>	<p>An event resulting in:</p> <ol style="list-style-type: none"> 1. the failure of normal natural gas/boil off gas (BOG) service to units D9 through D12 and not due to an intentional or negligent act, or omission on the part of the Permittee; or 2. the need for emergency pumping of water for either fire protection or flood relief.
<i>Initial startup</i>	The moment at which the first piece of permitted equipment on the FSRU is set in operation for the first time.
<i>Initial startup period</i>	The period of time between initial startup and steady state operation of the FSRU, not to exceed 60 days.
<i>Particulate matter</i>	Any material, except uncombined water, that exists in a finely divided form as a liquid or solid at standard conditions.
<i>Routine shutdown event</i>	The ceasing of operation of permitted equipment on the FSRU. The duration of each routine shutdown event shall not exceed one hour.
<i>Routine startup event</i>	The setting in operation of permitted equipment on the FSRU for any purpose any time after initial startup. Routine startup events are marked at the beginning by ignition of the equipment and last until the equipment has reached continuous operating levels. The duration of each routine startup event shall not exceed one hour.

V. Emission and Operational Limits

A. Emission limits for NO_x and CO

1. On and after the date of initial startup, the Permittee shall not discharge or cause the discharge of emissions into the atmosphere in excess of the following emission limits, except during routine startup and shutdown events.

Emission Unit	Pollutant	
	NO_x	CO
The following limits apply to the post-control emissions from each emission unit listed below while operating on BOG.		
D1 through D8	20 ppmv @ 3% O ₂ (3-hr average) [11.17 lbs/hr]	100 ppmv @ 3% O ₂ (3-hr average) [34.0 lbs/hr]
D9 through D12	9 ppmv @ 15% O ₂ (3-hr average) [5.94 lbs/hr]	20 ppmv @ 15% O ₂ (3-hr average) [8.04 lbs/hr]
The following limits apply to the post-control emissions from each emission unit while operating on diesel fuel pursuant to Condition V.E.6.		
D9 through D12	38.68 lbs/hr @ 15% O ₂ (3-hr average) [150 ppmv]	3.92 lbs/hr @ 15% O ₂ (3-hr average) [25 ppmv]

2. Upon conclusion of the initial startup period, the total annual emissions from units D1 through D16 shall not exceed the following emission limits, on a 12-month rolling average basis:

	Pollutant	
	NO_x	CO
Limit (tpy)	66.05	171.73

B. Emission Limits for ROC, SO₂ and PM₁₀

1. On and after the date of initial startup, the Permittee shall not discharge or cause the discharge of emissions into the atmosphere in excess of the following emission limits, except during routine startup and shutdown events.

Emission Unit	Pollutant		
	ROC (As CH ₄)	SO ₂	PM ₁₀
The following limits apply to the post-control emissions from each emission unit listed below while operating on BOG.			
D1 through D8	4.1 ppmv @ 3% O ₂ (3-hr average) [0.08 lb/hr]	0.08 lb/hr @ 3% O ₂ (3-hr average)	0.87 lb/hr @ 3% O ₂ (3-hr average)
D9 through D12	40 ppmv @ 15% O ₂ (3-hr average) [9.19 lbs/hr]	0.03 lb/hr @ 15% O ₂ (3-hr average)	3.45 lbs/hr @ 15% O ₂ (3-hr average)
The following limits apply to the post-control emissions from each emission unit while operating on diesel fuel pursuant to Condition V.E.6.			
D9 through D12	5.38 lbs/hr @ 15% O ₂ (3-hr average) [60 ppmv]	0.1 lb/hr @ 15% O ₂ (3-hr average) [0.3 ppmv]	2.83 lbs/hr @ 15% O ₂ (3-hr average) [0.0092 ppmv]

- The Permittee shall not discharge sulfur compounds from units D1 through D16 in excess of 300 ppmv at the point of discharge. For the purposes of this condition, all sulfur present in gaseous molecular compounds containing oxygen shall be calculated as SO₂.
- The Permittee shall not discharge sulfur dioxide which results in average ground or sea level concentrations at any point at or beyond the boundary of the FSRU in excess of the following amounts:

Concentration	Averaging Time
0.25 ppmv	1 hour
0.04 ppmv	24 hours

For the purposes of this condition, all sulfur present in gaseous molecular compounds containing oxygen shall be calculated as SO₂.

- The Permittee shall not discharge hydrogen sulfide from units D1 through D16 in excess of 10 ppmv at the point of discharge. For the purposes of this condition, all reduced sulfur compounds present shall be calculated as H₂S.
- The Permittee shall not discharge hydrogen sulfide which results in average ground or sea level concentrations at any point at or beyond the boundary of the FSRU in excess of the following amounts:

Concentration	Averaging Time
0.06 ppmv	3 minutes
0.03 ppmv	1 hour

For the purposes of this condition, all reduced sulfur compounds present shall be calculated as H₂S.

- Emissions of particulate matter from units D1 through D8 shall not exceed 0.12 pounds per million BTU of fuel input.
- Upon conclusion of the initial startup period, the total annual emissions from units D1 through D17 shall not exceed the following emission limits, on a 12-month rolling average basis:

	Pollutant		
	ROC	SO ₂	PM ₁₀
Limit (tpy)	28.66	0.42	12.13

C. Emission Limits for Ammonia

- On and after the date of initial startup, the Permittee shall not allow the discharge of ammonia (NH₃) into the atmosphere in excess of 10 ppmv from the SCR systems controlling units D9 through D12.

D. Opacity Limits

- The Permittee shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminants for a period or periods aggregating more than three (3) minutes in any one (1) hour which are as dark or darker in shade as that designated as No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines.

E. Operational Limits

- On or before the date of initial startup and continuously thereafter, the Permittee shall install, operate, and maintain the following:
 - SCR and oxidation catalyst systems for the control of air pollution from units D9 through D12, and
 - low NO_x burners for the control of air pollution from units D1 through D8.
- All air pollution control equipment and continuous emissions monitoring systems must be connected to their respective emission units and properly functioning at all times whenever the emission units are in operation, and may not be bypassed except in accordance with the EPA-approved

Startup, Shutdown, and Malfunction Plan prepared and submitted pursuant to [Condition VI.A.2](#) of this permit.

3. The total flow rate of BOG to units D1 through D8 shall not exceed 456.53 mcf/hr.
4. Of units D9 through D12, no more than three may be operated simultaneously.
5. Except as specified elsewhere in this permit, units D1 through D12 shall only operate on BOG. The BOG shall not contain sulfur compounds in excess of 1 ppmv, calculated as hydrogen sulfide at standard conditions.
6. Diesel fuel shall only be used under the following circumstances:
 - a. To operate units D9 through D12 to generate power during the initial startup period. Of units D9 through D12, no more than two may be operated simultaneously on diesel fuel during the initial startup period. Diesel fuel use for this purpose shall be discontinued upon receipt of LNG and the start of BOG service to the FSRU and shall not be subject to the time restriction of [Condition V.E.6.d](#) or the limit of [Condition V.E.7](#).
 - b. As a pilot fuel in units D9 through D12.
 - c. As a fuel for units D13 through D16 in emergency situations and for maintenance purposes.
 - d. As a backup fuel for units D9 through D12 for maintenance and readiness purposes, and in situations resulting in the failure of natural gas/BOG service to such units. Operation of units D9 through D12 on diesel fuel shall not exceed 100 hours per year total.
7. The total quantity of diesel fuel used by units D9 through D12 for backup purposes shall not exceed 48,417 gallons per calendar year.
8. The sulfur content of all diesel fuel used shall not exceed 15 ppmw.
9. Operation of units D13 through D16 for maintenance purposes shall not exceed 50 hours per unit per calendar year.
10. During routine startup periods, urea injection shall be initiated immediately after the SCR system catalyst temperature reaches 650° F.
11. The initial startup period shall not exceed 60 days.

12. The Permittee shall maintain all permitted units in accordance with the manufacturers' recommendations.

F. Nuisance

1. The Permittee shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endangers the comfort, repose, health or safety of any such persons or the public or which cause or have a natural tendency to cause injury or damage to business or property.

VI. Monitoring, Performance Testing, and Recordkeeping Requirements

A. Operational Plans

Prior to initial startup, the Permittee shall prepare the following plans and submit them to EPA for approval. The Permittee shall operate at all times in accordance with the approved plans and shall modify the plans after any change in operation and upon EPA request.

1. Engine Operator Inspection Plan (EOIP)

- a. Prior to initial startup, the Permittee shall submit to EPA an EOIP for review and approval by EPA in writing. The plan shall pertain to units D9 through D12 and include the following information:
 - the manufacturer, model number, rated horsepower, and combustion method (i.e., rich-burn, lean-burn, or diesel) of the engine;
 - a description of the NO_x control system installed on the engines, including type and manufacturer, as well as a description of any ancillary equipment related to the control of emissions (e.g., automatic air/fuel ratio controller, fuel valves);
 - the company identification number and location of the engine by a schematic of the affected facilities;
 - a specific emission inspection procedure to assure that the engine is operated in continual compliance with the NO_x, ROC, and CO limits set forth above. The procedure shall include an inspection schedule. At a minimum, an inspection of each engine shall be conducted every quarter or after every 2,000 hours of engine operation. In no event shall the frequency of inspection be less than once per year; and

- each preventative or corrective maintenance procedure or practice that will be used to maintain the engines and control systems in continual compliance with the limits set forth in this permit.
- b. Operation of units D9 through D12 out of compliance with the most recently approved plan shall be considered a violation of this permit unless a source test of the appropriate unit(s) under identical conditions indicates that the unit(s) is in compliance with the requirements of this permit.

2. Startup, Shutdown and Malfunction Plan (SSMP)

Prior to initial startup, the Permittee shall submit to EPA a SSMP for review and approval by EPA in writing. The plan shall include:

- a. procedures for operating and maintaining the emission units during routine startup and shutdown periods and breakdown conditions; and
- b. a program to minimize air pollution, and to implement necessary corrective actions to remedy *breakdown conditions* for equipment, including air pollution control and monitoring equipment used to comply with these permit conditions.

B. Monitoring Requirements

1. Emissions Monitoring for NO_x, CO, and O₂

- a. The Permittee shall properly install, maintain in good working order, and operate continuous emissions monitoring systems (CEMS) to monitor NO_x, CO and O₂ from units D1 through D12 while operating on BOG.
 - i. The Permittee shall install, calibrate and maintain the CEMS in accordance with the following requirements of 40 CFR Part 60, except that the acceptable Relative Accuracy for the CO monitor shall be 20%:
 - Appendix B, Performance Specifications 2, 3 and 4; and
 - Appendix F, Procedure 1.
 - ii. The quality assurance plan used by the Permittee for the certification and operation of the CEMS shall be made available to EPA upon request.

- b. Within fifteen days following the end of each calendar month, the Permittee shall calculate the total annual emissions of NO_x and CO from units D1 through D16 for the previous 12-month period. The emissions shall be calculated as a 12-month rolling average.
- i. For units D1 through D8 the calculations shall be based on the CEMS data.
 - ii. For operation of units D9 through D12 on BOG, the calculations shall be based on the CEMS data. For operation of units D9 through D12 on diesel, the calculations shall be based on the most recent performance test for each unit conducted in accordance with [Condition VI.C](#) of this permit.
 - iii. For units D13 through D16, the calculations shall be based on the following emission rates:

Emission Unit	Emission rate	
	NO _x (g/kW-hr)	CO (g/kW-hr)
D13 through D16	5.600	3.500

2. Emissions Monitoring for ROC, SO₂, PM₁₀

- a. Within fifteen days following the end of each calendar month, the Permittee shall calculate the total annual emissions of ROC, SO₂, and PM₁₀ from units D1 through D17 for the previous 12-month period. The emissions shall be calculated as a 12-month rolling average.
 - i. For units D1 through D12, the ROC calculations shall be based on the results of the most recent performance test conducted in accordance with [Condition VI.C](#) of this permit. The SO₂ calculations for these units shall be based on fuel consumption, the sulfur content of the diesel fuel, and the most recent BOG sulfur content analysis performed in accordance with [Condition VI.B.6](#).
 - ii. For units D13 through D16 the calculations shall be based on the following emission rates:

Emission Unit	Emission rate		
	SO ₂ (g/kW-hr)	PM ₁₀ (g/kW-hr)	ROC (g/kW-hr)
D13	0.006	0.200	0.800
D14 through D16	0.007	0.200	0.800

iii. For unit D17, the calculations shall be based on an ROC emission rate of 0.03 tpy.

3. Opacity

- a. The Permittee shall conduct inspections for visible emissions from all stacks and other emission points on an annual basis and at other times as requested by EPA. The inspections shall be conducted for a minimum of 60 minutes by a Method 9 certified observer and shall be conducted in accordance with EPA Method 9 except for data reduction. Each observation made every 15 seconds shall represent that 15 second period. Each observation that is over 20% opacity shall be accumulated to determine if the opacity exceeded 20% for more than 3 minutes in any hour.

4. Fuel Consumption

- a. The Permittee shall install and operate totalizing flow meters to measure the volume of diesel fuel used monthly by units D9 through D16.
- b. The Permittee shall install and operate totalizing flow meters to measure and record in a permanent format the volume of BOG consumed on an hourly basis by units D1 through D12. The meters shall be configured to indicate the flow of BOG to units D1 through D8 as a group and to units D9 through D12 as another group. The flow meters must meet one of the procedures specified in 40 CFR Part 75 Appendix D 2.1.5.1, as appropriate for the type of meter installed.

5. Engine Use

- a. The Permittee shall install and maintain non-resettable elapsed operating hour meters to accurately indicate the elapsed operating time of units D9 through D16.
- b. The Permittee shall install and maintain meters to measure and record the kW-hr produced by units D13 through D16.

6. BOG Sulfur Content

- a. The Permittee shall have the sulfur content of the BOG analyzed within 30 days after initial startup. The sulfur content of the BOG shall be analyzed annually thereafter, within 30 days of the anniversary of the initial analysis.
 - i. The sulfur content shall be determined by South Coast AQMD Method 307-94 - Determination of Sulfur in a Gaseous Matrix, or by ASTM D1072, Standard Test Method for Total Sulfur in Fuel Gases.

The Permittee may use the colorimetric method ASTM D4810 for the measurement of the sulfur content only if prior written approval has been granted by EPA.

7. SCR Catalyst Temperature

- a. The Permittee shall install and maintain a device to accurately measure and record the temperature of the exhaust at the inlet to the catalysts in the SCR systems serving units D9 through D12.

C. Performance Tests

1. The Permittee shall conduct the following initial and subsequent performance tests:
 - a. Initial Performance Tests:
 - i. Within 120 days after the end of the initial startup period, the Permittee shall conduct the following performance tests on the exhaust stack gases from units D1 through D13 while operating on the specified fuel:

Emission Units	Pollutants	Fuel
D1 through D8	NO _x , ROC, CO, PM ₁₀ , particulate matter	BOG
D9 through D12	NO _x , ROC, CO, PM ₁₀ , ammonia, formaldehyde	BOG
D13	NO _x , ROC, CO, PM ₁₀	Diesel

- ii. The initial performance tests for units D9 through D12 listed in [Condition VI.C.1.a.i](#) shall also be conducted while operating on diesel fuel for any unit that fires on diesel during the initial startup period.

- iii. The following test methods shall be used:
- A. Performance tests for emissions of NO_x shall be conducted using EPA Methods 1-4 and 7E.
 - B. Performance tests for emissions of ROC shall be conducted using EPA Method 25A. Method 18 may be used to subtract out methane and other non-reactive VOCs.
 - C. Performance tests for emissions of CO shall be conducted using EPA Method 10, 10A, or 10B or ASTM D6522-00.
 - D. Performance tests for emissions of PM₁₀ shall be conducted by using EPA Method 5 and Method 202.
 - E. Performance tests for emissions of particulate matter shall be conducted by using CARB Method 5. The total particulate catch shall include the filter catch, probe catch, impinger catch, and the solvent extract as specified in CARB Method 5.
 - F. Performance tests for emissions of formaldehyde shall be conducted using EPA Method 323.
 - G. Performance tests for emissions of ammonia shall be conducted in accordance with the Bay Area AQMD Method ST-1B.
 - H. Measurement of volumetric flow rate and velocity shall be conducted by Method 2, 2F, or 2G.
- iv. Performance tests using EPA methods shall be conducted and the results reported in accordance with the test methods set forth in 40 CFR 60.8 and 40 CFR 60, Appendix A.
- v. The Permittee shall notify EPA of the tests in writing and provide EPA with a test plan at least 45 days prior to such tests. The Permittee shall revise the plan upon EPA request.
- vi. Within 45 days after the completion of the tests required above, a report of the test results shall be submitted to EPA and the VCAPCD.

The test report shall indicate:

- the emissions of NO_x, ROC and CO in ppmv and lbs/hr, corrected to the amount of excess oxygen in percent by volume specified elsewhere in this permit;
- the emissions of PM₁₀ in lb/hour;
- the emissions of particulate matter in pounds per million Btu of fuel input;
- the emissions of ammonia in ppmv and tpy;
- the emissions of formaldehyde in tpy;
- the fuel flow rate under which the tests were conducted. The values shall be expressed in gallons for diesel and standard cubic feet for BOG;
- the exhaust flow rate in scfm under which the tests were conducted; and
- the sulfur content of each fuel in ppmw.

b. Subsequent Performance Tests

- i. The Permittee shall conduct the following performance tests on the exhaust stack gases from units D1 through D12 according to the specified frequency and while operating on the specified fuel. The tests shall be conducted in a manner consistent with [Conditions VI.C.1.a.iii](#), [VI.C.1.a.iv](#), [VI.C.1.a.v](#), and [VI.C.1.a.vi](#).

Emission Units	Pollutants	Fuel	Frequency
D1 through D8	ROC, PM ₁₀	BOG	Every two years*
	Particulate matter	BOG	Every five years*
D9 through D12	ROC	BOG	Annually*
	PM ₁₀ , ammonia	BOG	Every two years*
	NO _x , CO, ROC, PM ₁₀ , ammonia	Diesel	After every 500 hours of cumulative operation of units D9 through D12 on diesel, individual units must be tested if they have operated on diesel for 100 or more hours since they were last tested on diesel. In no case shall any individual unit be tested less than once every ten years. †

* The tests shall be conducted within 30 days of the anniversary of the initial performance test.
† The tests shall be conducted within 90 days after every 500 hours of cumulative operation.

2. For performance test purposes, the Permittee shall provide sampling ports, platforms, and access to the exhaust systems for units D1 through D13 in accordance with 40 CFR 60.8(e), and any written requests made by EPA to provide additional facilities and access as are reasonably necessary, in accordance with SIP Rule 101. Reasonably necessary facilities and access may include, but not be limited to, provision of transportation for EPA inspectors to and from the FSRU.

D. Recordkeeping Requirements

1. The Permittee shall keep records of the following parameters or items. Unless otherwise specified, the records shall be maintained for a period of five years following the date of such measurements, purchases, maintenance activities, or reports. The original records shall be kept onboard the FSRU and copies of the records shall be kept at an onshore location in mainland Ventura County that is reasonably accessible to inspection personnel at all times. At a minimum, the records maintained onshore shall be updated on a monthly basis. The original records and the copies must be in a permanent form suitable for review and inspection.
 - a. CEMS records containing the following:
 - all emissions measurements taken by the CEMS,
 - the date and results of all calibration checks, tests, adjustments, and maintenance,
 - the date, time, and duration of any routine startup or shutdown events and breakdown conditions, and
 - the date, time, and duration of any periods during which a continuous monitoring system or monitoring device is inoperative and the identity of such device.
 - b. The results of the calculations required by [Conditions VI.B.1.b](#) and [VI.B.2.a](#).
 - c. Results of all performance tests.
 - d. Results of the annual visible emissions inspections. The records shall include the date and time of the inspections, the emission units inspected, and the identity of the person or persons conducting the inspections.

- e. A representative fuel analysis or exhaust analysis along with modeling data to ensure that compliance with [Condition V.B.3](#) is being maintained.
- f. The kW-hr produced individually by units D13 through D16.
- g. The volume of BOG consumed on an hourly basis by units D1 through D12.
- h. The volume of diesel fuel used each month by units D9 through D16.
- i. The results of the tests performed to determine the sulfur content of the BOG.
- j. For each diesel fuel delivery, including the initial filling of unit D17, documents from the fuel supplier certifying compliance with the fuel sulfur content limit.
- k. The operating hours of units D1 through D16 during each calendar month.
- l. The temperature of the exhaust at the inlet to the catalysts in the SCR systems serving units D9 through D12.
- m. The occurrence and duration of any routine startup or shutdown event, breakdown condition, or emergency situation.
- n. Any information required by the EOIP such as the date and results of each emission inspection, and the dates that any preventative or corrective maintenance actions were taken.
- o. Any information required by the SSMP.
- p. An inspection log containing, at a minimum, the following data for units D9 through D12:
 - identification and location of the units,
 - date and results of each inspection performed according to the EOIP,
 - a summary of any corrective maintenance taken, and
 - any additional information required in the EOIP.
- q. Records showing the dimensions of unit D17 and an analysis showing its capacity. These records shall be kept for the life of the unit.

2. In addition to any recordkeeping requirement specified elsewhere in this permit, the Permittee shall keep records of all required monitoring and testing information, where applicable, that include:
 - the date, place, and time of sampling or measurements,
 - the date(s) analyses were performed,
 - the company or entity that performed the analyses,
 - the analytical techniques or methods used,
 - the results of such analyses, and
 - the operating conditions as existing at the time of sampling or measurement.

VII. Required Notifications and Reporting

The Permittee shall notify EPA of each event listed below. Each notification shall be signed by a company official of BHPB. Compliance with these notification provisions shall not excuse or otherwise constitute a defense to any violation of this permit or of any law or regulation. All reports must be submitted electronically to r9.aeo@epa.gov, in PDF format or other formats acceptable to EPA.

A. Commencement of Construction and Initial Startup

1. The Permittee shall notify EPA in writing of the:
 - actual date it commenced construction. The notification shall be made within thirty (30) days after such date;
 - anticipated date of initial startup. This notification shall not be made more than sixty (60) days after or less than thirty (30) days prior to such date. The notification shall identify all emission units, air pollution control devices and CEMS monitors, and shall include a plot plan depicting the location and ID numbers of such units, devices, and monitors;
 - actual date of initial startup and commencement of steady state operation of the FSRU (the end of the initial startup period) within fifteen (15) days after the end of the initial startup period;
 - date of receipt of the first shipment of LNG and the start of BOG service to the FSRU;
 - location where records required by this permit will be maintained.

B. Exceedances

1. The Permittee shall report any violation of any emission limit as indicated by the CEMS in writing to EPA within 96 hours of each occurrence.

C. Breakdown Conditions

1. The Permittee shall notify EPA by facsimile (415-947-3579) or electronic mail (r9.aeo@epa.gov) of any occurrence which constitutes a breakdown

condition. Such notification shall be made no later than four hours after its detection and shall identify:

- the time at which the breakdown condition was discovered,
- the specific location, and
- the equipment involved.

2. Within one week after a breakdown condition has been corrected, the Permittee shall submit a written report to EPA which includes:

- a statement that the occurrence has been corrected, together with the date of correction and proof of compliance,
- a specific statement of the reasons or causes of the occurrence sufficient to enable EPA to determine whether the occurrence was a breakdown condition,
- a description of the corrective measures undertaken to mitigate the emissions and restore normal operations,
- a description of the measures to be undertaken to avoid such an occurrence in the future; EPA may, at the request of the Permittee, for good cause, extend up to 30 days the deadline for submitting the description of the future measures,
- the period of time over which emissions were increased due to the breakdown condition,
- an estimate of the emissions released in excess of those allowed by this permit, and
- pictures of the equipment or controls that failed, if available.

D. Semi-annual Reporting

1. Semi-annually, the Permittee shall submit a written report to EPA that includes the following information:

- specific identification of each instance in which any emission or operational limit in this permit was exceeded, including during routine startup and shutdown events and breakdown conditions. The report shall include the date, time, duration, and magnitude of excess emissions, the nature and cause of the excess, the corrective actions taken, and the preventive measures adopted;
- the date, time, and duration of each period during which the continuous monitoring system was inoperative, except for zero and span checks;
- a description of continuous monitoring system repairs or adjustments made during the reporting period; and
- the averaging period used for data reporting.

a. The semi-annual reports shall be submitted according to the schedule below:

Required Submittal Date	Reporting Period
Between July 1 and July 31 of each year	The previous 6-month period from January through June
Between January 1 and January 31 of each year	The previous 6-month period from July through December

- b. The semi-annual report shall include a negative declaration when no emission or operational limits were exceeded during a reporting period.
2. In addition to the information above, the semi-annual report submitted in January of each year shall also include the following information for the previous calendar year:
 - a summary of the corrective maintenance performed on units D9 through D12,
 - the total fuel consumption and hours of operation of units D9 through D16
 - the total annual hours of non-emergency operation of units D13 through D16, and
 - a written statement showing the actual emissions of NO_x and ROC from units D1 through D17. At a minimum, the emission statement shall contain all of the information contained in the California Air Resources Board's Emission Inventory Turn Around Document as described in the most recent version of "Instruction for the Emission Data System Review and Update Report."

VIII. General Facility Requirements

- A. At all times, including during routine startup and shutdown events, breakdown conditions, and emergency situations, the Permittee shall, to the extent practicable, maintain and operate all equipment, including associated air pollution control and emissions monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions.
- B. All emissions, including those associated with emergency situations and breakdown conditions shall be included in all emissions calculations and demonstrations of compliance with the annual mass emission limits in this permit.
- C. A copy of this permit must be posted on the FSRU and the original permit must be kept at an onshore location in mainland Ventura County that is accessible to EPA authorized representatives and inspectors.

IX. Right of Entry

The EPA Regional Administrator, and/or an authorized representative, upon the presentation of credentials, shall be permitted:

- to enter the premises where the source is located or where any records are required to be kept under the terms and conditions of this permit; and
- at reasonable times, to have access to and copy any records required to be kept under the terms and conditions of this permit; and
- to inspect any equipment, operation, or method required in this permit; and
- to sample emissions from any emission units.

X. Transfer of Ownership

In the event of any changes in control or ownership of Cabrillo Port, this permit shall be binding on all subsequent owners and operators. The Permittee shall notify the succeeding owner and operator of the existence of this permit and its conditions. Notification shall be by letter with a copy forwarded to the EPA.

XI. Severability

The provisions of this permit are severable, and, if any provision of the permit is held invalid, the remainder of this permit will not be affected thereby.

XII. Expiration of ATC and Obligation to Apply for Operating Permits

- A. This permit shall expire and shall be cancelled two years from the date of issuance or when a Permit to Operate or Temporary Permit to Operate is granted or denied, whichever comes first, unless the owner or operator has either obtained a written extension from EPA or commenced construction. Once construction has commenced, this permit shall expire and be cancelled if construction stops for more than eighteen months unless the owner or operator has obtained a written extension from EPA.

To obtain an extension, the applicant must submit an application requesting such an extension prior to the expiration date of this ATC. EPA may grant a two-year extension to the expiration date in the following cases:

1. EPA determines that all applicable air emission control requirements in effect on the expiration date are not more stringent than the control requirements that were originally imposed.
2. EPA determines, based on an analysis submitted by the applicant, that the more stringent applicable air emission control requirements in effect on the expiration date are not cost-effective for the project, taking into consideration expenditures already made in addition to additional expenditures needed to comply with new control requirements.

B. Prior to initial startup, the Permittee shall apply for and obtain a Permit to Operate in accordance with Rule 10 of the Ventura County Portion of the California SIP. The application shall include the following:

1. any information EPA finds necessary to determine that the emissions unit(s) will operate without emitting air contaminants in violation of any applicable rules and regulations,
2. a statement signed by the applicant that the data submitted with the application is true and that the emissions unit(s) will comply with all applicable rules and regulations, and
3. one of the following:
 - a. A statement that the emissions unit(s) were installed and will be operated in conformance with all requirements of this Authority to Construct, or
 - b. A list of all changes that were made that differ in any way from the requirements of the Authority to Construct.

C. The Permittee shall submit an application for a title V operating permit within 12 months following initial startup. The application must satisfy the requirements of VCAPCD Rule 33.

XIII. Other Applicable Regulations

The Permittee shall construct and operate Cabrillo Port in compliance with all other applicable provisions of federal, state, and District regulations including, but not limited to, the following: 40 CFR 61 Subpart M, 40 CFR Part 82, Rules 74.2 and 74.6 of the Ventura County portion of the California State Implementation Plan, and Section 93115 of Title 17 of the California Code of Regulations.

XIV. Agency Addresses

A. All correspondence required by this permit shall be forwarded to:

Director, Air Division
Attn: Air-3
EPA Region IX
75 Hawthorne Street
San Francisco, CA 94105-3901

B. Copies of all correspondence required by this permit shall be sent to:

1. Air Pollution Control Officer
Ventura County Air Pollution Control District
669 County Square Drive
Ventura, California 93003

2. Chief, Stationary Source Division
California Air Resources Board
P.O. Box 2815
Sacramento, CA 95812